

REMARKS

I. Status of Claims

This paper is responsive to the Office Action mailed November 24, 2008. Claims 22, 26, 27, 35-40, and 43-49 are pending in this application and are rejected in the Office Action under 35 U.S.C. §103(a).

II. Response to Rejections Under 35 USC §103(a)

At page 3 of the Office Action, claims 22, 26, 35-40, and 44-49 have been rejected under 35 U.S.C. §103(a) as being obvious over Shea *et al.* (*Proc Natl. Acad. Sci. USA* 93: 2593-7, 1996) in view of Hensel *et al.* (*Molecular Microbiology* 24(1): 155-67, 1997). Specifically, the Examiner asserts that Shea *et al.* teach an attenuated gram-negative cell comprising an inactivated gene at the SPI2 locus and that Hensel *et al.* teach SPI2 type III secretion genes including the effector genes or *sse*.

Applicants respectfully traverse this rejection and assert that the Examiner has not met his burden of establishing a *prima facie* case of obviousness. Applicants respectfully point out that to reject a claim under obviousness, there must be “a finding that the prior art included each element claimed...” when more than one reference is combined. See MPEP 2143 (emphasis added).

Although the Office Action has rejected claim 22 under 35 U.S.C. §103(a) as being obvious over Shea *et al.* in view of Hensel *et al.*, Applicants submit that this rejection is clearly erroneous because Hensel *et al.* fails to teach the specific genes listed. Claim 22 specifies that the effector (*sse*) gene is selected from the group consisting of *sseC*, *sseD* and *sseE*. There is no disclosure, characterization, or teaching of *sseC*, *sseD*, or *sseE* in Hensel *et al.*

As stated at MPEP 2144.08, “[t]he fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness.” (emphasis added). Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 22 under §103(a) based on Shea *et al.* in view of Hensel

et al. Furthermore, because claims 26, 35-40, and 44-49 are directly or indirectly dependent upon claim 22, Applicants respectfully request withdrawal of the rejections of these claims under §103(a).

At page 4 of the Office Action, claims 22, 26, 27, and 43 have been rejected under 35 U.S.C. §103(a) as being obvious over Hensel *et al.* in view of Tsolis *et al.* (*Infection and Immunity* 63(5): 1739-1744 (1995) and further in view of Public Health Agency of Canada, Vol. 24-03, 1998. Specifically, the Examiner asserts that Hensel *et al.* teach an attenuated gram-negative cell comprising an inactivated gene at the SPI2 locus, that Hensel *et al.* teach SPI2 type III secretion genes including the effector genes or *sse*, that Tsolis *et al.* teach superoxide dismutase genes, and that the Public Health Agency of Canada teaches the specific isolate of *Salmonella typhimurium* DT 104.

Applicants respectfully traverse the rejections of claims 22, 26, 27, and 43 under U.S.C. §103(a). As discussed above, Hensel *et al.* fails to disclose an effector (*sse*) gene selected from the group consisting of *sseC*, *sseD* and *sseE*. The teachings of Tsolis *et al.* do not cure this deficiency. Claims 26, 27, and 43 are directly or indirectly dependent from claim 22. Therefore, the rejection of claims 26, 27, and 43 should also be withdrawn.

III. Conclusions

In light of the above remarks, Applicants respectfully submit that claims 22, 26, 27, 35-40, and 43-49 satisfy all criteria for patentability and are in condition for allowance. Applicants await favorable action. If the Examiner believes that an interview would be helpful to resolve any remaining issues in this application, the Examiner is invited to telephone the undersigned at the number below.

Pursuant to 37 CFR § 1.136(a)(3), the Commissioner is hereby authorized to charge all required fees, including fees under 37 CFR § 1.17 and all required extension of time fees, or credit any overpayment, to Deposit Account No. 50-1283.

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